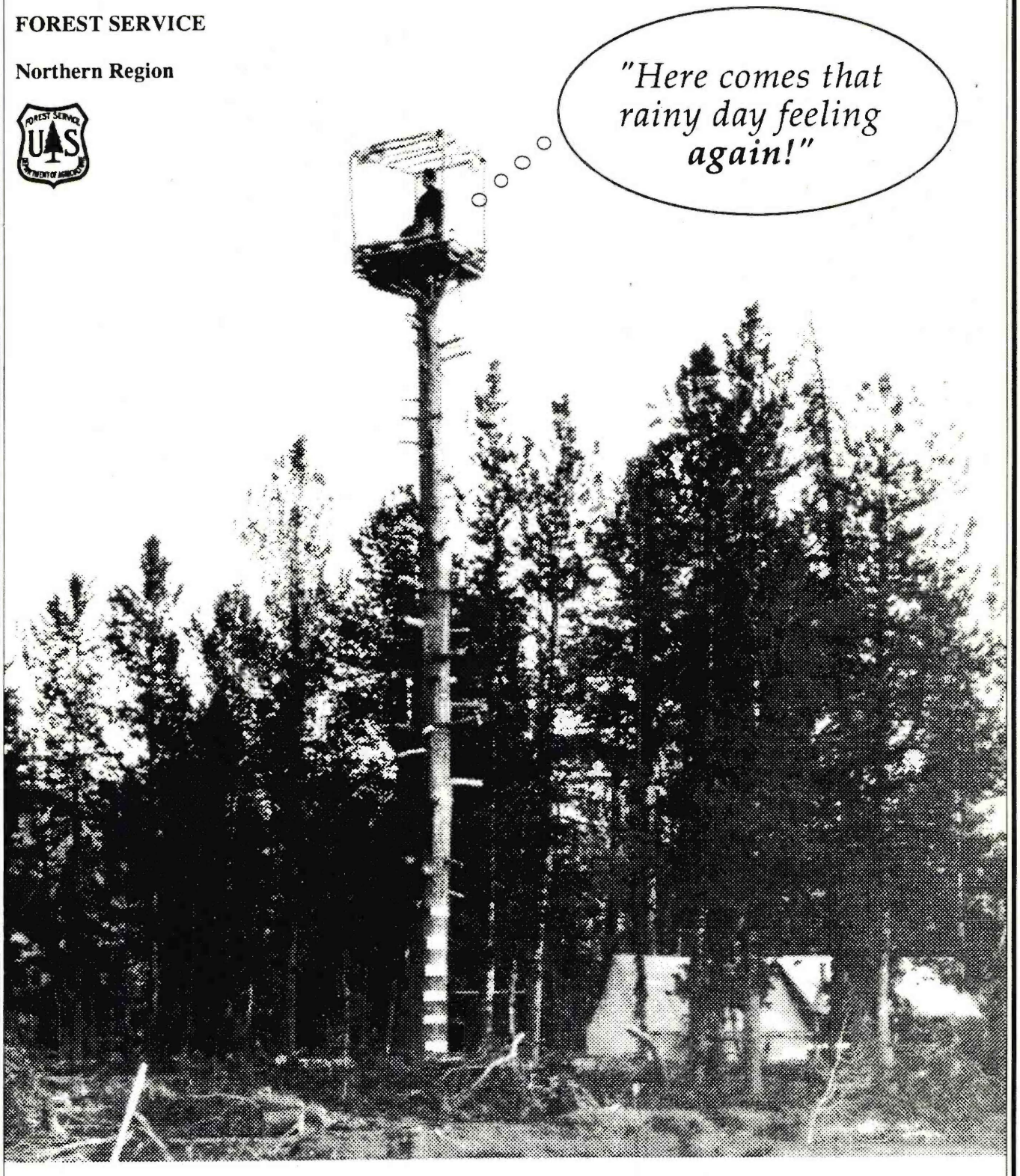
United States
Department of
Agriculture

FOREST SERVICE

Northern Region



1993 Annual Fire Report

During 1993, the following people retired after a long association with Aviation and Fire Management. We wish them the best:

Ray Rizor	Custer National Forest
Will Clark	Custer National Forest
Bill Meadows	RO Aviation and Fire Management
Jim Cyr	RO Aviation and Fire Management
C. L. (Bud) Clarke	RO Aviation and Fire Management
Floyd Whittaker	RO Aviation and Fire Management
Charlie McCord	Idaho Panhandle National Forest
Donald Strunk	Idaho Panhandle National Forest
Hal Wetzsteon	Beaverhead National Forest
Don Bennett	Flathead National Forest
Bob McKee	Bitterroot National Forest

IN MEMORIUM

In July, retired Kootenai Forest Dispatcher Frank Hingley passed away. Frank was known as Uncle Frank by the troops in the field, and will be missed by all.

Cover designed by the Lolo National Forest

5100

Missoula, Montana

December 1993

NORTHERN REGION

ANNUAL REGIONAL FIRE REPORT

CALENDAR YEAR 1993

Richard M. Bacon

RICHARD M. BACON
Director, Aviation and Fire Management

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GENERAL

Much of the Northern Rockies ecosystem returned to normal precipitation in 1993. The winter snowpack fell short of average in all but a few drainages, however, a series of late storms and unceasing spring rains managed to recharge all but the 1000-hour fuels. The spring burning season was hampered due to the rain--and an early fire season did not look imminent. The Southwest and Alaska generated a little action and we were able to support those areas with smokejumpers, type I crews, and a few miscellaneous overhead. Throughout the summer, not a drop of retardant fell, nor a parachute popped open over a fire in the Northern Rockies until July 30 when Grangeville mobilized for the first fire jump of the year.

As August arrived, the rains continued. Frequent showers allowed numerous site visits and details to occur. Thousands of hours of project work were accomplished and priority administrative activities handled promptly. The "severity" helicopters were farmed out to a more southerly latitude and the airtankers stayed in the Southwest until the end of July. On August 22, the West Yellowstone smokejumpers found a fire to jump (granted outside of the Northern Rockies), leaving only the Missoula base without a fire jump.

Intermittent showers and fall-like temperatures accompanied the calendar change to September. The "shut out" continued, with no additional fire jumps and only one retardant delivery from Grangeville--that too out of the Region. A small fire on the Lolo received the only retardant dropped in the Region this year. In late fall, the Los Padres NF in southern California experienced the Marre Fire which resulted in the mobilization of six type I crews, some overhead, and the inaugural dispatch of the Incinet kits. During the Santa Ana winds of late October, the Northern Rockies mobilized 691 people to California. This included 32 crews and 51 overhead.

The Northern Rockies Coordination Center continues to provide effective coordination of area resources. Over the course of the entire year, 1,088 personnel were dispatched by the center. This included 46 crews and 168 overhead personnel, with most assignments occurring in the Southwest Area and South Zone.

FIRE WEATHER SEASON SUMMARY

The fire season of 1993 will likely be remembered as "the season that never was". Mother Nature unveiled a year of great contrast from previous years, highlighted by above normal precipitation and cool temperatures. Early in the year, below normal snowpack coupled with dry antecedent conditions during recent years indicated the potential for an active fire season. During the first week of April, the Palmer Drought Index showed much of the region in a moderate to severe drought category. A few pockets of extreme drought were located in western Montana and in the Hells Canyon area on the Snake River in Idaho.

Typical spring season precipitation was followed by record rainfall in July across much of the Northern Rockies. The summer period was an extension of spring-like conditions with abundant rainfall, cool temperatures, higher humidities and additional cloud cover.

December 1992, January and February 1993 - A persistent northwest flow aloft served a steady diet of colder than normal air to the Region. Average monthly temperatures ranged from 5 to 10 degrees below normal. Winter storms rolled through the area with moderate frequency early on, tapering off in February. A "drier" snow fell during this unusually cold period. Snow depths at all elevations appeared normal, but were misleading. The water-equivalent values in the snow were sub-par in many cases (ranging from 75 to 100% of normal).

Precipitation totals ranged from 75 to 100% of normal during this period.

March, April and May - The spring season was highlighted by a west to southwest flow pattern which carried periodic weather systems through the Northern Rockies. This pattern fed adequate subtropical moisture into western sections, while much of eastern Montana fell under a rain shadowing effect. High pressure patterns

were only temporary resulting in few prolonged warming and drying periods in northern Idaho and western Montana.

Rainfall totals for portions of northern Idaho, western Montana, extending to the east slopes of the divide ranged from 100 to 165% of normal. Drier conditions prevailed in much of eastern Montana with only 55 to 100% of normal rainfall.

Cloud cover held day-time temperatures down, but also limited radiational cooling at night. Average temperatures ranged from 0 to 4 degrees above normal.

Mountain snowpack data showed gains at the higher elevations with above normal precipitation. Average mountain snowpack ranged from 60 to 75% in March, increasing to 75 to 95% by May.

June, July, and August - Some folks question whether summer really showed up or not this year. Conditions were more spring-like with abundant rainfall, cool temperatures, higher humidities, and additional cloud cover during the period. A moist southwest flow aloft alternated with a series of low pressure systems in dominating the Region's summer season.

Amounts, duration, and timeliness of rainfall were directly responsible for the lack of fires this season. Summer rainfall totals ranged from 125 to 250% of normal. Most impressive was July's numbers, exceeding most normal values by 200 to 400%. Record breaking rainfall occurred in the Flathead Valley and Billings areas of Montana, which approached 540% of normal.

Cool air and additional cloud cover associated with weather systems held average temperatures 4 to 7 degrees below normal for the period.

September, October, and November - Rains not only doused fire season, but nearly erased the long-term drought conditions. By the first week of September, the Palmer Drought Index indicated near normal conditions for the first time in several years. The only area which continued to show a moisture deficit was the Hells Canyon area on the Snake River in Idaho.

A cool northwest flow aloft was the predominant weather pattern for much of the fall season. Most areas received 50 to 100% of normal precipitation due to the cool, drier air. However, this pattern also favored upslope conditions along the east slopes of the Front Range which benefitted with 100 to 150% of normal precipitation.

Canadian weather systems periodically passed through the eastern two-thirds of the Region, dragging cool air into eastern Montana.

Temperatures ranged from 1 to 3 degrees below normal in eastern Montana, while western Montana and northern Idaho remained 0 to 2 degrees above normal.

Fall burning season was quite successful despite a slow start due to moist conditions carried over from the summer season.

Summary - This past season was highlighted by timely spring and summer rainfall that suppressed fire season and nearly quenched the long-term moisture deficits Region-wide. Many areas of the Region received 4 to 7 inches in excess of their normal precipitation for the period June through August. In addition to precipitation, cool temperatures, higher humidities, and cloud cover played supporting roles to suppress this year's fire season.

Fire-Weather Activities - Weather support to all land management agencies in northern Idaho and Montana was provided by the Missoula and Billings National Weather Service Offices in accordance with the published

Fire Weather Operating Plan. Daily forecasts were issued for presuppression planning (including NFDRS inputs) from June through October. Regular land management forecasts were available from Missoula the remainder of the year and Billings through November.

Spot forecasts were issued for wildfires and prescribed fires from March through November. The Missoula office provided 280 spot forecasts--one of the spot forecasts was for a wildfire. The Billings office provided 34 spot forecasts--none were for wildfires.

There were no requests for on-site support to wildfires this past fire season.

FOREST HIGHLIGHTS

Beaverhead/Deerlodge - Bannack State Park became the eleventh cooperator in the Dillon Interagency Dispatch Center. The Anaconda Pintler Wilderness (Beaverhead, Deerlodge, and Bitterroot National Forests) came back on line for prescribed natural fire. The Management Plan for the 160,000-acre Wilderness was approved by the Regional Forester on April 30.

Bitterroot - The wet fire season allowed the Forest to put on several fire training courses needed by Forest personnel to become fully qualified in their fire positions.

Clearwater - The use of prescribed natural fire and modified suppression strategies on the Clearwater in 1993 resulted in an estimated NFFF suppression cost savings of approximately $33,600.

Custer - Personnel from several rural fire departments and Turtle Mountain BIA have been assisting the Ranger Districts in prescribed burning. Good working relationships are developing with the rural fire departments in sharing resources, equipment, and training.

Flathead - Incorporated Swan Lake and Glacier View Ranger Districts into a Zone fire operation with one District Fire Management Officer responsible for the two District programs.

Mother Nature provided many a spectacular light show during the season, however, the score card at the end of the "game" showed lightning-caused fires to be zero. Maps from ALDS showed 3000+ strikes from storms during the season, but due to moisture both of the fuels on the ground and received in the storms, lightning occurrence fires were nonexistant--a record!

Gallatin - Culminated a 2-year effort to bring the prescribed natural fire program back on line in the Absaroka Beartooth Wilderness on July 21 when the Deputy Regional Forester approved the AB Fire Management Guidebook.

The South Central Dispatching Zone was created and includes: Yellowstone National Park, Gallatin National Forest, and Montana Department of State Lands.

Helena - This was the first year for the Forest to be a designated base on the national airtanker contract. The P-3 was not used anywhere in Region 1, but it did spend a week in Canada on an airtanker demonstration program for the Canadian Fire Service.

Strong Interagency cooperation continues between the Forest Service and Montana Department of State Lands (DSL) including the joint dispatch center, the Forest Service providing a helicopter module for the DSL helicopter, cooperative aerial detection efforts, and joint prevention activities.

Idaho Panhandle - The Forest continues to enjoy strong cooperative efforts with the Idaho Department of Lands and the Coeur d'Alene tribal crews. The Idaho Department of Lands provided engine crews to assist

the Forest on project work this year. The Coeur d'Alene had a paid crew on full time and they were an important source of labor for prescribed fire.

Kootenai - The Districts have been working on different ecosystem management projects where fire scar analyses have been completed to substantiate the fire history maps of the area to running fire suppression analyses. The fire suppression analysis is done by taking some fire starts and running BEHAVE using weather factors that can be found for the timeframe of that specific start. This approach will tell what would have happened if we hadn't suppressed the fire and what the fire may have done to the ecosystem if we had not interfered.

Lewis and Clark - To better understand the effects of large fires and to track the recovery of the land, the Forest is continuing its multi-faceted monitoring program. Hydrological response to the burned watershed, possible effects on fisheries, and short- and long-term vegetation recovery are the major components of the monitoring program. Complementary to these studies, photographic plots (photopoints and transects) have been established at several locations.

Lolo - This was the first operational year of the Southwestern Montana Interagency Coordination Center--combining the Forest Service (Lolo and Bitterroot National Forests), BIA (Flathead Agency), and State of Montana (Southwest Land Office) with the mission of serving and supporting emergency activities within the Zone.

The Lolo IHC received funding from International Forestry to travel to Brazil to help train Brazilian firefighters as part of the International Exchange Program.

M. Lynee' Maillet was the recipient of the 1993 Regional Office Aviation and Fire Management Safety Award.

Nez Perce - A short-term lease of land at Grangeville Airport was negotiated between the Idaho County Commissioners and the Forest. Because of the need for a Remote Automatic Weather Station (RAWS) at Grangeville, an agreement was reached with the County Commissioners to place the station at the Grangeville Airport. In return, the Commissioners will receive 1 year of wind direction and speed data which is needed for any further development of the airstrip.

Aerial Fire Depot (Economic Efficiency Efforts) - The Aerial Fire Depot developed performance levels for FY94 that reflects the fire mission and responsibilities to provide resources for regional and national commitments. An 8 percent reduction in FTE's indicates the AFD's commitment to becoming more efficient and cost effective.

ADMINISTRATION--The administrative unit worked diligently to streamline processes and prioritize the value of various services. FY93 saw the reduction of the receptionist position and increasing demands for Excellence in Financial Management.

AVIATION--The aviation unit transferred .5 FTE to the facilities unit, reduced the amount of travel authorized, reduced to a minimum professional training for career advancement and reduced to a minimum the training required to sustain professional qualifications.

The aviation program underwent a full review by a Regional Aviation Task Force in 1993. The results included recommendations to eliminate the pilot trainee program and one large smokejumper aircraft. This would result in savings of two FTE's and increase the mix of WCF and contract aircraft use.

NORTHERN TRAINING CENTER--The Incident Management Training Specialist position was not filled when the incumbent retired. Options for filling the position were analyzed. None of the options were viable yet the message from the users came across loud and clear not to reduce the quality or quantity. The Bitterroot and

Lolo National Forests offered to provide detailers into the Incident Management Training Specialist positions for 1994.

NORTHERN ROCKIES COORDINATION CENTER--The Center continues to provide effective coordination of area resources. Full integration of dispatching operations with the Montana Department of State Lands creates new efficiencies and cost savings. With the light volume of mobilization this year, details and other project assistance were offered by personnel in the Center. The Center is reducing a seasonal employee and will train other on-base personnel to assist in its operations (.5 FTE savings and dollar savings of $8,000).

ENGINE SHOP--The Engine Program reduced its full time staff by two FTE's, a 50 percent reduction. The position of Equipment Specialist and Shop Foreman were not filled following retirements. Production was maintained by bringing in detailers from the Clearwater and Bitterroot Forests and by using the BIA Engine Program mechanics from the Cheyenne River Agency, South Dakota. The Engine Program continued to operate at close to maximum capacity, completing 62 major projects.

SMOKEJUMPER UNIT--The Smokejumper Unit had a salary savings of $65,870 in 1993. This was due to not filling the GS-9 Fire Fireman position and not filling four GS-6 13/19 positions. We replaced five career smokejumpers with five temporary smokejumpers which works out to a 1.62 savings.

WILDFIRE STATISTICS

Occurrence

Year	Lightning	Person-Caused	Total
1988	998	438	1,436
1989	1,168	284	1,452
1990	850	357	1,207
1991	926	403	1,329
1992	1,107	322	1,429
5-year average	1,010	361	1,371
1993	221	163	384

Acres Burned

Year	Lightning	Person-Caused	Total
1988	284,490	309,648	594,138
1989	14,495	3,814	18,309
1990	4,472	13,890	18,362
1991	12,731	25,450	38,181
1992	54,759	1,341	56,100
5-year average	74,189	70,829	145,018
1993	84	631	715

Statistical Causes of Person-Caused Fires

Cause	1988	1989	1990	1991	1992	5-year average	1993
Equipment Use	50	22	31	25	23	30	8
Smoking	45	26	36	41	19	33	10
Campfire	121	80	105	164	129	120	74
Debris Burning	71	72	76	63	63	69	29
Railroad	30	5	23	15	16	18	4
Children	9	7	9	8	5	8	1
Arson	9	8	11	79	11	24	11
Miscellaneous	93	64	66	80	56	72	26
Total	428	284	357	403	322	374	163

Wildfire Occurrence by Size Class

	Class							
	A	B	C	D	E	F	G	TOTAL
LIGHTNING								
1993	196	24	1					221
5-year average (1988-1992)	699	264	28	5	4	3	5	1008
PERSON-CAUSED								
1993	133	22	6	2				163
5-year average (1988-1992)	203	100	18	6	4	6	2	339
TOTAL ALL FIRES								
1993	329	46	6	2				384
5-year average (1988-1992)	902	364	46	11	8	9	7	1347

Class A = .25 acre or less
Class B = .26 acre to 9.9 acres
Class C = 10 to 99.9 acres
Class D = 100 to 299.9 acres
Class E = 300 to 999.9 acres
Class F = 1,000 to 4,999.9 acres
Class G = 5000 or more acres

Number of Fires and Acres Burned by Forest

	Number of Fires			Acres Burned		
Forest	Lightning	Person-Caused	Total	Lightning	Person-Caused	Total
Beaverhead	3	3	6			
Bitterroot	32	17	49	4	11	15
Clearwater	32	12	44	3	33	36
Custer	15	6	21	29	160	189
Deerlodge		4	4		6	6
Flathead		14	14		1	1
Gallatin	3	7	10	1	6	7
Helena	8	6	14	2	1	3
Idaho Panhandle	24	20	44	4	7	11
Kootenai	30	33	63	25	61	86
Lewis and Clark	3	1	4			
Lolo	23	33	56	10	340	350
Nez Perce	50	7	57	6	5	11
Total	221	163	384	84	631	715

AVIATION AND FIRE MANAGEMENT TEAMS

Forest Fire Management and Aviation Officers established teams/task forces to work on various, mutually beneficial projects within the Region. The established teams and their charters are:

ECOSYSTEM MANAGEMENT - To pursue Aviation and Fire Management's ecosystem management strategic issue and make recommendations to the Aviation and Fire Management Leadership Team.

SMOKEJUMPER - To inform and advise the management of the Smokejumper Unit when concerns are brought to the attention of the task force from users in the field.

GROWING FUTURE AVIATION LEADERS - Concerned with the developmental process of aviation positions at all levels in the Region.

FUTURE ORGANIZATIONAL NEEDS OF FIRE MANAGEMENT IN REGION 1 - Identify future changes or demands in fire and aviation management as it relates to the total organization, i.e., resource and environmental protection, all risk management, wildland/urban interface, fire use programs, ecosystem management and fire applications, cooperative fire programs with other agencies. Identify future skills needed for fire and aviation management positions and identify options to improve workforce diversity.

BUDGET - To provide Forest/RO shared leadership in Regional A&FM planning, programming and budgeting development and implementation. This task force will fill an advisory role to the Regional A&FM program management team, providing assistance and support to the Region in planning, programming and budgeting matters.

EQUIPMENT - To give the Forests a greater voice with where the Regional fire group is headed both Regionally and nationally in the arena of equipment development.

WILDLAND/URBAN INTERFACE - To provide a forum for exchange of information on the latest techniques relating to dealing with wildfires and the potential for economic and environmental loss due to wildfires.

FIRE USE

Even though 1993 was an exceptionally quiet year in terms of wildfires and prescribed natural fires it was a productive year for the management ignited prescribed fire program. Regionally, both the MAR 16.2 (FFP) and 16.3 (BD) targets were exceeded by the Forests. This was accomplished with only one reported escape that resulted in a wildfire declaration.

Listed below are the individual accomplishments of each Region 1 National Forest as reported in the Management Attainment Reporting System.

Final FY 1993 Fuels Program Accomplishments

	BD (MAR 16.3)		FFP (MAR 16.2)	
Forest	Target	TSMRS	Target	TSMRS
Beaverhead	200	227	850	1180
Bitterroot	195	981	970	1097
Idaho Panhandle	9245	9476	750	756
Clearwater	2525	2370	800	769
Custer	81	114	2200	3025
Deerlodge	2000	1994	1600	1536
Flathead	1000	1245	1800	2037
Gallatin	409	440	575	590
Helena	845	849	1300	1231
Kootenai	7590	8061	1200	1289
Lewis & Clark	900	833	1300	972
Lolo	2400	2645	2400	1889
Nez Perce	2200	3298	1500	1620
Regional Totals	29590	32533	17245	17991

Prescribed Natural Fire--In 1993, three additional prescribed natural fire areas came back on line. They were the Anaconda Pintler (4/30), the Gospel-Hump (6/3) and the Absaroka-Beartooth (7/21). This added nearly 1.3 million acres to the prescribed natural fire program bringing the total to more than 4.5 million acres in the Region.

This year there were only 13 prescribed natural fires in the above areas. They occurred in the Gospel-Hump, Frank Church/River-of-No-Return, Selway-Bitterroot and Bob Marshall Wilderness Complex. Every lightning caused ignition in the approved areas was managed as a prescribed natural fire in 1993. Total acreage treated in wilderness this year was 449 acres.

Following is a summary of the prescribed natural fire activity in 1993.

Prescribed Natural Fire Program Summary

Wilderness/Forest	Fire Name	Size	Remarks
Selway/Bitterroot	Stewart Creek Clearwater Running Creek Lonely Mountain Lonely Creek **Total**	.1 10 .1 50 388 **448.2**	
Selway/Clearwater	Diablo **Total**	.1 **.1**	
Selway/Nez Perce	Elevator Archer **Total**	Spot Spot **.0**	
Bob Marshall/L&C	Hoadley Creek No Name Gulch **Total**	Spot Spot **.0**	
Gospel-Hump/Nez Perce	Rock Creek Point **Total**	.1 **.1**	
FC-RONR/Nez Perce	Dennis Lake Witter Ridge **Total**	.1 .1 **.2**	

Total Prescribed Natural Fires	13
Total Acres Burned (Prescribed)	449
(Wildfire)	0

Probable cost as wildfires (13 fires X $4000/fire)	$52,000
Actual Project Cost as Prescribed Natural Fire	$4,000 ($9.01/acre)
Savings	$48,000

Funding by Forest:

Forest	Project $	Acres	FFF $	Acres
Bitterroot National Forest	4000	443.2	-	-
Clearwater National Forest	0	.1	-	-
L&C National Forest	0	.0	-	-
Nez Perce National Forest	0	.3	-	-
Totals	4000	443.6	-	-

COOPERATIVE FIRE AND PREVENTION

The NRCG (Northern Rockies Coordinating Group) met three times this year-- Missoula in April for the prefire season meeting, Glacier National Park in October and Fairmont Hot Springs in December. The extra meeting in December was to chart new direction and working procedures for the group. NRCG was chaired by the National Park Service in 1993. Charter member Dick French from the BIA in Portland retired this year, and the October meeting was his last.

During the summer, the Montana Department of State Lands published the final version of the Fire Protection Guidelines for Wildland Residential Interface Development. The Department developed these in conjunction with the State Fire Marshal's office, and under legislative direction, to serve as a guide to homeowners, developers and anyone reviewing or considering plans for a sub-division or development. Input to the guidelines was provided over the past 2 years by other agencies including the Forest Service.

The Region processed approximately $4,812,000 worth of Federal Excess Personal Property (FEPP) in 1993; of this, Montana accounted for $1,328,000, North Dakota accounted for $568,000, and Idaho accounted for $2,916,000. A joint R-1 and R-4 FEPP review was done in Idaho during the last week of June, and the same two Regions collaborated to put on a 3-day FEPP workshop in Salt Lake in October for the States of Neveda, Utah, Wyoming, Arizona, North Dakota, Idaho and Montana. The Washington Office participated as did instructors from R-5 and R-3.

North Dakota hosted the Interior West Fire Council meeting in Bismarck the last week of October. The meeting was well done, and focused on prescribed fire in the prairie ecosystems. The Region was represented by personnel from the Intermountain Fire Research Laboratory, Missoula Technology and Development Center, Regional Office, and Lolo and Custer National Forests.

The Forest Service participated in the annual Montana Fire Chief's Association meeting in Loma, Montana in May. The meeting was organized and directed by Doug Williams (Undersheriff and Firewarden in Choteau County) with major support from the Montana Department of State Lands. The focus of the 4-day meeting was to provide local fire chiefs with further training and background in ICS organization and operation. The exercise involved the intentional firing and subsequent suppression of 640 acres of overgrown Conservation Reserve land using the ICS system.

The Region received $223,000 (this has been a constant amount for the past 5 years) in RCFP, and $669,000 (up from $653,000 in 1992) in RFPC in 1993. The RCFP distribution by state was Montana $69,600; Idaho $41,300; and North Dakota $112,100. The RFPC distribution was Montana $287,140; Idaho $228,540; and North Dakota $70,320.

The Director of A&FM met with the State Foresters of the three states in the Region, and with the area heads of the fire management programs for the Park Service, Bureau of Land Management, and Bureau of Indian Affairs as well as with all the Forests and various local fire chief's to begin the development of long range, interagency fire programs. This will be a continuing effort with the objective of drawing the agencies together so their energies can be focused on consistent long-term results.

The interagency prevention effort was funded by the member agencies to the amount of almost $19,000. The money was used to finance 12 special prevention activities throughout the Region. These included two basketball events with local universities, six rodeo/fair events, a prevention poster, four baseball events and a 4-day basketball tournament. Several agencies decided to sponsor a particular interagency event rather that contribute money to the general fund pool. The Region continued its planning for Smokey's 50th birthday next year, and all Forests are developing special programs for this event.

PROGRAM MANAGEMENT AND SYSTEMS

In April 1993, WIMS became operational, replacing AFFIRMS. Over 600 users with proper security access were set up. Region 1 is involved in the management of WIMS as well as the continuing development. A help desk has been developed for national WIMS support and a tracking system for the WIMS questions and problems is being developed. This data base will be used to analyze the needs of WIMS users to better provide support in the future.

AROS Version 5.00 was released on June 15, 1993, along with a User's Guide and Manager's Manual. A resource status system was also developed and is being Beta tested at several sites.

Through agreement with the Washington Office, the Region has taken over the care and feeding of INCINET. Management of the program has included testing of the equipment through the environmental chambers at NIFC, inventorying and tagging all the capital equipment and arranging a management contract for foaming the cartons for shipping. The Region has secured all of the supplies for the initial build up of nine Basic Kits, 18 Workstations Kits and nine Portable Kits. Three of the Basic Kits, one portable kit and seven of the workstation kits were dispatched to California during the fire storm there in September and October.

NORTHERN TRAINING CENTER

The Northern Training Center presented 32 courses to 848 trainees in 1993. One third of these trainees were from other agencies and it was the first year all agencies shared the interagency program costs based on percent of participation.

The Training Manager and the Training Specialists assisted local areas with course development, course presentations, firefighter training schools, and prescribed fire operations. The Fire Use Training Specialist assisted in the development and implementation of the Regional Minimum Impact Suppression Tactics (MIST) guidelines.

The Training Center remained involved in national course development through assistance in developing the Fire Training Specialist, S-445 course; developing a National self-study users guide to BEHAVE: Fire Behavior Prediction and Fuel Modeling System; final rewrite of the Advanced Wildland Fire Behavior Calculations, S-490 course; and participation in the development of an Air Tactical Supervisor's Guide.

AVIATION MANAGEMENT

Smokejumper Aircraft Activity - Fire-related use, other than refresher training for the smokejumpers and pilots, began on May 31 when Region 3 activated the Silver City smokejumper base and ordered the Region 1 DC-3. In what would prove to be the only significant activity of the season, 115Z dropped approximately 25 fires and amassed a total of 58 hours before returning to Missoula on July 15. From that date on the DC-3 and the Sherpa were used exclusively for proficiency jumps as the Missoula base set a record of no fire jumps for the season.

The Grangeville Twin Otter came on base June 24 and jumped the first fire on July 30. The Grangeville base set the Region 1 smokejumper use record for the season with a total of 6 fire jumps. The Otter accumulated 63.5 hours of use before going off contract September 21.

The King Air 200 arrived in West Yellowstone on July 19 and flew weekly practice jumps (when it wasn't raining and/or snowing!) until the call came for the one and only fire jump of the season on August 22. Before the base closed on October 3, 318W flew a total of 21 hours.

Light Aircraft Activity - Light aircraft activity in Region 1 during the fire season was at a record low level in 1993. Region 1 lead planes flew only a single mission within the Region, although fires in Region 3 early in the season brought the total of lead plane missions flown to 22--about 45 hours total. There were only four retardant missions flown in the Region during the fire season.

Helicopter Program - The Region had five exclusive use helicopters in 1993:

Forest	Helibase	Helicopter Type	Contractor
Bitterroot	Hamilton, MT	Bell Long Ranger 206L-4	Minuteman Aviation Missoula, MT
Flathead	Kalispell, MT	Bell Jet Ranger 206B-3	Reeder Flying Service Twin Falls, ID
Kootenai	Libby, MT	Bell Jet Ranger 206B-3	Cascade Helicopters Cashmere, WA
Nez Perce	Grangeville, ID	Alouette III S.A. 316B	Eagle Helicopters Spokane, WA
Lolo	Missoula, MT	Bell Jet Ranger 206B-3	Minuteman Aviation Missoula, MT

The Nezperce started a cargo letdown program this year and trained their helicopter crew in this operation. This capability was not utilized on any fires or projects.

The Region hosted two Type II national severity helicopters for the 1993 fire season. These helicopters were on contract for a 60-day period. Both helicopters were used on fires and projects within the Region and both were sent to fires in the Great Basin.

Forest	Helibase	Helicopter Type	Contractor
Beaverhead	Dillon, MT	Bell Super 204B+	River City Helicopters Hayden, ID
Kootenai	Libby, MT	Bell 212	Crew Concepts Boise, ID

AIRCRAFT ACCIDENT/INCIDENT REPORT SUMMARY

Incident Number	Date	Aircraft	Summary
93-01-002-O	4/14/93		Mechanic exceeded duty time by 1 hour
93-01-003-F	4/15/93	C-23A Sherpa	Right engine fuel leak
93-01-004-F	4/19/93	C-23A Sherpa	Parachute testing - dummy turned in door and did not exit straight out. Dummy turned enough to nick the leading edge and hit trailing edge with enough authority to wrinkle the door-sill.
93-01-005-O	4/30/93		Pilot cards were issued without required check rides.
93-01-006-H	5/12/93	206 B III	Oil pressure gauge was redlined.
93-01-007-O	5/19/93	206 B III	Improperly cleaned helitorch
93-01-008-O	5/24/93	206 B III	Helitorch tipped over and spilled approximately 25 gallons of gelled fuel
93-01-009-O	6/21/93	206 B III	Forest Service radio-pager was used while helicopter was in flight. Pager audible sound was heard over the Forest Service FM radio frequency followed by short message. Pager audible sound may be similar to audible warning indicators built into aircraft. Did not affect flight missions, but could cause confusion.
93-01-010-O	6/16/93	C-421	Confusion regarding a CWN pilot and aircraft being properly carded.
93-01-011-F	8/9/93	182 RG	Aircraft's low voltage indicator light came on. Problem was bad alternator.
93-01-012-O	9/9/93	206 B III	Medivac
93-01-013-H	9/13/93	Aerospatiale SA-316B	Airframe fuel filter warning light. Filter found to be contaminated.
94-01-001-H	10/4/93	206 B III	Helitorch end bumped on a tree
94-01-002-H	10/12/93	206 B III	Medivac. Qualified helicopter manager unavailable. Patient loaded and transported without flight suit or helmet.

RETARDANT PROGRAM

The Missoula Air Tanker Base concluded their testing of the new Monsanto fluid products in 1993. Missoula will be returning to a competitive bid basis in 1994.

Retardant use at the Region 1 bases in 1993 was as follows:

Retardant Base	Gallons of Retardant Dropped
Missoula	2,450
Coeur d'Alene	
Kalispell	
Grangeville	2,000
Helena	
BLM	
Billings	
Total	4,450

ENGINE PROGRAM

The Engine Program undertook and completed 62 major projects: 28 for R-1 Forest Service, eight for BIA Billings/Aberdeen Area, seven for R-2 Forest Service, six for BIA Phoenix Area, six for BIA Portland Area, four for BIA Albuquerque Area, two for R-4 Forest Service, and one for BIA Minneapolis Area. Of the total, 35 were new assembly, 15 units were completely refurbished, four old units were retrofitted to current standards, and eight units required major repairs or replacement of components. During the year numerous minor repairs were completed by the program, and repair parts were sent to participating units for installation on a ongoing basis.

The high level of major projects was due in part to Region 2 making a commitment to upgrade and standardize their engine fleet. The Engine Program continues to be fully interagency, with funding and position support coming from both R-1 and the BIA. Currently, of the three full-time employees, half are funded by the BIA. Two off-season detailers from the Nez Perce and Gallatin Forests assisted and were funded by the BIA, R-2, and R-4 from new construction funds.

Upon request, the shop/service vehicle made numerous trips to service units in the field. Over 60,000 miles have been driven over the last 2 years, with the goal of having down-time of any field fire engine unit limited to 12 hours.

Work progressed on the installation of around-the-pump or downstream proportioning foam devices on all units scheduled through the program, with the goal of having all units with foam capability in the near future. Evaluation of new foam devices and other technology continued.

A new Water Handling Instructors course was developed to improve training levels. The course was conducted for interagency participants at the Northern Region Training Center, and for the BIA Aberdeen Area Office in South Dakota. The Interagency Fire Engine and Water Handling course was conducted for the BIA Southwest agencies, and for the Lewistown/Miles City BLM.

Other areas of involvement by personnel included providing technical assistance on controlled burns, instructing the water handling segments of the Tactics and Strike Team Leader courses, instructing smokejumpers in water use, and continued involvement with the BIA meeting their water-related equipment needs.

NORTHERN ROCKY MOUNTAIN AREA OVERHEAD TEAM DISPATCHES

Northern Rocky Mountain Area Type I and II teams were not dispatched in 1993.

FIRE CACHE SUMMARY

Late in the 1993 fire season, a new fire cache was established in Billings, Montana. This cache is under the jurisdiction of the BIA and the BLM and is located on the north side of the Billings Airport. By the beginning of the 1994 fire season, plans are for this new cache to be capable of supporting 600 firefighters for a 24-hour period. The three 250-person vans prepositioned in eastern Montana and South Dakota will add to the capability by providing for 750 firefighters for a 24-hour period.

The volume of business figures for the 1993 fire season show that the Region 1 Fire Cache responded to 436 orders. This represents requests for 2,323 line items totalling 261,965 pounds of materials and supplies and valued at $1,333,362.

SMOKEJUMPER ACTIVITIES

Item	Home Region
1. Number of bases	3
2. Number of jumpers	116

Fires Staffed:

Agency	R-1 USFS	Non R-1 USFS	Northern Rockies (Other agencies)	Non Northern Rockies (Other agencies)
Initial Attack:	6	19	0	3
Reinforcement:	3	12	0	0
Total:	9	31	0	3

Jump Fires:

Agency	R-1 USFS	Non R-1 USFS	Northern Rockies (Other agencies)	Non Northern Rockies (Other agencies)
Grangeville:	6	*	0	*
Missoula:	0	*	0	*
West Yellowstone:	0	1	0	*
Total	6	29	0	3

*Combined crews, individual bases subtotals not shown

Fire Jumps:

Agency	R-1 USFS	Non R-1 USFS	Northern Rockies (Other agencies)	Non Northern Rockies (Other agencies)
Grangeville:	23	19	0	5
Missoula	0	33	0	12
West Yellowstone:	0	18	0	4
Total:	23	70	0	21

Ground Action Fires:

Agency	R-1 USFS	Non R-1 USFS	Northern Rockies (Other agencies)	Non Northern Rockies (Other agencies)
Grangeville	3	*	0	0
Missoula	2	*	0	0
West Yellowstone	0	*	0	0
Total	5	7	0	0

*Combined crews, individual bases subtotals not shown

Person Hours on Fire:

Agency	R-1 USFS	Non R-1 USFS	Northern Rockies (Other agencies)	Non Northern Rockies (Other agencies)
Grangeville:	1,733	2,058	0	449
Missoula:	1,258	6,850	0	684
West Yellowstone:	0	1,117	42	184
Total:	2,991	10,025	42	1,317

Project Work Hours:

Agency	R-1 USFS	Non R-1 USFS	Northern Rockies (Other agencies)	Non Northern Rockies (Other agencies)
Grangeville:	3,800	*	0	0
Missoula: :	13,554	*	366	0
West Yellowstone:	812	152	416	0
Total:	18,166	1,104	782	0

*Combined crews, individual bases subtotals not shown

ADMINISTRATION

Civil Rights - The Aerial Fire Depot developed a Human Equality Leadership Program in lieu of a CRAG. An action plan was designed and many activities accomplished. They included: procurement of a TDD device for the hearing impaired, annual Region/Lolo Easter Egg Hunt, Community Care lectures for parents, implementation of a supervisory training program, and implementing a civil rights performance element for all supervisors. Continued employment of handicapped individuals exhibit our commitment to a diverse workforce. Two wheelchairs have been procured for use by the Smokejumper Visitor Center to accommodate physically challenged individuals on the tour.

Missoula Fire and Technology Site Plan - With the Congressional funding received for this project, we were able to secure the civil/mechanical/electrical planning of the infastructure and the installation of a new water line on a portion of the site. FY93 also saw the National Weather Service begin construction on their new weather forecast office next to the Loft building.

Facility Management - Our facilities unit continues to remediate OSHA and other safety deficiencies identified in our facility review. The AFD completed an accessibility survey and exhibits at the Smokejumper Visitor Center were rennovated to accommodate wheelchair access. Other accomplishments was the installation of a sprinkler system for life safety in the dormitory, updating of our fire alarm system, installation of a handicapped accessible restroom in the Loft, and implementation of a lock program for the dormitory that will insure greater personnel safety.

AIRCRAFT USE REPORT

SUMMARY FLIGHT USE BY AIRCRAFT TYPE AND MISSION - FY 93

AIRTANKER

Mission Code Activity	Pay Code Description	Passen-gers	Pounds Cargo	Gallons retar-dant	Flight Hours	Total Cost
01 PILOT TRAINING	FLIGHT TIME			1,800	.37	493.95
04 RESERVED	AVAILABILITY					1,559.00
	EXTENDED STANDBY					112.00
10 RETARDANT/WATER DELIVERY	AVAILABILITY					358,693.10
	EXTENDED STANDBY					5,768.00
	FLIGHT TIME			305,879	143.07	252,023.06
	MANDATORY DAY OFF					00
	NON-AVAILABILITY				14.00	.00
	OTHER CHARGES					0.00
	OTHER NON FLIGHT					76.85
	OVERNIGHT					7,213.06
	SERVICE TRUCK					132.00
17 OTHER, FIRE SUPPRESSION	AVAILABILITY					102,593.00
	EXTENDED STANDBY					280.00
	MANDATORY DAY OFF					0.00
	OTHER NON FLIGHT					122.30
	OVERNIGHT					600.00
20 FERRY	AVAILABILITY					0.00
	FLIGHT TIME				8.65	19,693.98
34 OTHER, NORMAL ACTIVITIES	EXTENDED STANDBY					56.00
	MANDATORY DAY OFF					0.00
	OVERNIGHT					288.00
TOTAL FOR AIRTANKER				307,679	138.09	749,704.30

FIXED WING

Mission Code Activity	Pay Code Description	Passen-gers	Pounds Cargo	Gallons retar-dant	Flight Hours	Total Cost
01 AIRCRAFT, PILOT, UNIT IN-SPECTIONS	FLIGHT TIME	66	1,977		40.00	9095.40
	OTHER CHARGES					17.00
	STANDBY					27.00
02 PILOT TRAINING	FLIGHT TIME	45	1,660		180.10	49,451.70
	OTHER CHARGES					200.00
03 AIRCRAFT MAINTENANCE				600	18.30	6,433.40
04 RESERVED	FLIGHT TIME	26			2.40	1,193.70
05 PERSONNEL TRANSPORT, FIRE SUPPRESSION	FLIGHT TIME	61	3,392		33.00	11,714.40
06 RECONNAISSANCE	FLIGHT TIME	44	25		46.40	6,411.30
07 DETECTION	FLIGHT TIME	139	285		291.40	40,463.50
	OTHER NON FLIGHT					34.00
09 LEADPLANE	FLIGHT TIME		2,150		79.00	23,059.20
11 SMOKEJUMPER TRANSPORT	AVAILABILITY					24,803.00
	EXTENDED STANDBY					174.00
	FLIGHT TIME	1,575	35,562		116.50	54,651.90
	OVERNIGHT				66.00	
14 EQUIPMENT/SUPPLY TRANS-PORT, FIRE SUPPRESSION	FLIGHT TIME	2	2,760		19.60	7,400.70
17 OTHER, FIRE SUPPRESSION	AVAILABILITY					88,999.00
	EXTENDED STANDBY					174.00
	OTHER CHARGES					269.00
	OVERNIGHT					132.00
18 PERSONNEL TRANSPORT, NORMAL ACTIVITIES	AVAILABILITY					7,295.00
	EXTENDED STANDBY					435.00
	FLIGHT TIME	835	23,041		281.50	81,962.60
	OTHER CHARGES					1,532.32
	OTHER CREDIT					-78.50
	OTHER NON FLIGHT					150.00
	OVERNIGHT					1,056.00
	STANDBY					3,314.20
19 SURVEY/OBSERVATION	FLIGHT TIME	370	3,340		575.00	81,716.30
	OTHER NON FLIGHT					55.20
	OVERNIGHT					2,442.00
	STANDBY					2,484.00
20 FERRY	AVAILABILITY					8,754.00
	EXTENDED STANDBY					145.00
	FLIGHT TIME					10,299.80
	OVERNIGHT					264.00
21 WILDLIFE/ANIMAL COUNT	FLIGHT TIME	78			148.10	16,173.90
22 SEARCH AND RESCUE	FLIGHT TIME	1			.90	111.60
23 LAW ENFORCEMENT/ INVESTIGATION	FLIGHT TIME	11	280		15.70	2,698.40
24 RESEARCH	FLIGHT TIME	10	700		.80	320.00
27 PRESCRIBED BURNING	FLIGHT TIME	1			1.70	270.30
29 CARGO TRANSPORT	FLIGHT TIME	18	21,029		15.40	3,728.80
30 AERIAL PHOTOGRAPHY, NOR-MAL ACTIVITIES	FLIGHT TIME	5			5.70	819.60
34 OTHER, NORMAL ACTIVITIES	AVAILABILITY					1,459.00
	FLIGHT TIME	115	5,245		10.60	3,628.70
	OVERNIGHT					66.00
	STANDBY					145.30
TOTAL FOR FIXED WING		3,407	103,746		1,921.40	556,018.72

HELICOPTER

Mission Code Activity	Pay Code Description	Passen-gers	Pounds Cargo	Gallons retar-dant	Flight Hours	Total Cost
01 AIRCRAFT, PILOT, UNIT IN-SPECTIONS	AVAILABILITY					6,644.00
	FLIGHT TIME	8	198		1.90	497.80
	SERVICE TRUCK					147.00
	STANDBY					87.00
02 PILOT TRAINING	FLIGHT TIME		210		.30	81.30
03 AIRCRAFT MAINTENANCE	NON-AVAILABILITY				.20	.00
05 PERSONNEL TRANSPORT, FIRE SUPPRESSION	AVAILABILITY					2,632.00
	FLIGHT TIME	101	6,930		35.10	16,577.90
	OTHER NON FLIGHT					712.50
	SERVICE TRUCK					590.25
06 RECONNAISSANCE	FLIGHT TIME	42	385		20.20	7,178.80
	STANDBY					180.00
07 DETECTION	FLIGHT TIME	22	2,115		9.20	2,927.70
	SERVICE TRUCK					245.00
10 RETARDANT/WATER DELIVERY	AVAILABILITY					1,050.00
	EXTENDED STANDBY					294.00
	FLIGHT TIME	4	110,800	19,415	47.70	24,500.40
	OTHER NON FLIGHT					300.60
	OVERNIGHT					132.00
	SERVICE TRUCK					1,607.75
12 HELITACK	AVAILABILITY					53,298.00
	EXTENDED STANDBY					660.00
	FLIGHT TIME	116	5,835		25.00	8,601.30
	OVERNIGHT					66.00
	SERVICE TRUCK					550.75
	STANDBY					300.00
14 EQUIPMENT/SUPPLY TRANS-PORT, FIRE SUPPRESSION	EXTENDED STANDBY					28.00
	FLIGHT TIME	14	24,355		20.10	7,911.90
	SERVICE TRUCK					165.00
16 AERIAL IGNITION, FIRE SUP-PRESSION	FLIGHT TIME				1.50	759.00
	SERVICE TRUCK					89.63
17 OTHER, FIRE SUPPRESSION	AVAILABILITY					163,635.00
	EXTENDED STANDBY	2				754.00
	FLIGHT TIME	21	1,036		2.50	1,002.70
	MANDATORY DAY OFF					
	OTHER CHARGES					1,050.00
	OTHER CREDIT					-357.29
	OTHER NON FLIGHT					116.00
	OVERNIGHT					132.00
	SERVICE TRUCK					938.35
18 PERSONNEL TRANSPORT, NORMAL ACTIVITIES	AVAILABILITY					14,609.00
	EXTENDED STANDBY					476.00
	FLIGHT TIME	725	27,032		151.90	67,954.70
	GUARANTEE					253.00
	SERVICE TRUCK					2,093.80
	SPECIAL PASSENGERS					

HELICOPTER (continued)

Mission Code Activity	Pay Code Description	Passen-gers	Pounds Cargo	Gallons retar-dant	Flight Hours	Total Cost
19 SURVEY/OBSERVATION	EXTENDED STANDBY					1,458.00
	FLIGHT TIME	683	18,861		172.40	66,497.40
	OTHER CHARGES					1,050.00
	OVERNIGHT					858.00
	SERVICE TRUCK					2,687.25
	STANDBY					360.00
20 FERRY	FLIGHT TIME	21	885		21.20	8,532.60
	SERVICE TRUCK					75.00
22 SEARCH AND RESCUE	AVAILABILITY					579.00
	EXTENDED STANDBY					270.00
	FLIGHT TIME	17	779		4.90	1,425.10
	OVERNIGHT					66.00
	SERVICE TRUCK					245.00
23 LAW ENFORCEMENT/ INVESTIGATION	FLIGHT TIME	7	130		1.10	298.10
	SERVICE TRUCK					114.75
	STANDBY					120.00
24 RESEARCH	FLIGHTTIME	3	980		3.30	1,214.60
	GUARANTEE					365.40
	OVERNIGHT					66.00
	SERVICE TRUCK					144.00
26 FIRE MANAGEMENT	AVAILABILITY					61,444.07
	EXTENDED STANDBY					448.00
	FLIGHT TIME		500		3.60	964.80
	SERVICE TRUCK					777.00
27 PRESCRIBED BURNING	EXTENDED STANDBY					60.00
	FLIGHT TIME	25	7,200		11.20	4,502.40
	SERVICE TRUCK					213.75
29 CARGO AIRCRAFT	AVAILABILITY					1,629.00
	EXTENDED STANDBY					364.00
	FLIGHT TIME	145	510,461		168.40	81,914.20
	OTHER CREDIT					-152.70
	OVERNIGHT					528.00
	SERVICE TRUCK					1,577.75
30 AERIAL PHOTOGRAPHY, NORMAL ACTIVITIES	AVAILABILITY					1,050.00
	EXTENDED STANDBY					290.00
	FLIGHT TIME	43	442		28.60	12,156.70
	OTHER CHARGES					50.58
	OTHER CREDIT					-170.79
	OVERNIGHT					264.00
	SERVICE TRUCK					407.25
31 INFRARED IMAGERY, NORMAL ACTIVITIES	FLIGHT TIME	3	25		1.60	428.80
32 AERIAL IGNITION, NORMAL ACTIVITIES	EXTENDED STANDBY					1,366.00
	FLIGHT TIME	95	131,545		268.10	122,495.60
	OTHER CREDIT					-94.50
	OVERNIGHT					924.00
	SERVICE TRUCK	2	5,000			7,672.01
	STANDBY					150.00

HELICOPTER (continued)

Mission Code Activity	Pay Code Description	Passen-gers	Pounds Cargo	Gallons retar-dant	Flight Hours	Total Cost
34 OTHER, NORMAL ACTIVITIES	AVAILABILITY	1				53,316.80
	EXTENDED STANDBY	2				2,296.00
	FLIGHT TIME	141	116,679		58.90	25,782.60
	OTHER CHARGES					52.00
	OTHER CREDIT					-512.85
	OVERNIGHT					1,188.00
	SERVICE TRUCK					4,880.28
40 SEED AND FERTILIZATION	EXTENDED STANDBY					56.00
	FLIGHT TIME	3	64,200		32.40	11,011.40
	OTHER CHARGES					250.00
	OTHER NON FLIGHT					750.00
	OVERNIGHT					66.00
	SERVICE TRUCK					484.50
41 MEDIVAC	FLIGHT TIME	2			1.20	607.20
HELICOPTER TOTAL		2,248	1,036,583	19,415	1,092.10	881,386.89
GRAND TOTAL		5,655	1,140,329	327,094	3,151.59	2,187,109.91

PERSONNEL EMPLOYED ON WILDFIRE PRESUPPRESSION AND SUPPRESSION ACTIVITIES

FS-5100-8

Item	Sub-Total	Total
1. Regular appointed personnel		
a. Full-time fire management (20 pay periods or more)	166	
b. Part-time fire management	157	
c. Others used on presuppression sometime during year	50	
d. Others used on suppression	176	
e. Total (a + b + c + d)		549
2. Seasonal or short-term personnel		
a. Regular fire control (crews, firefighters, patrol, lookouts, etc.)	621	
b. Others (BD, KV, BR, R&T, etc.) who spent some time on fire control work	309	
c. Emergency firefighters	119	
d. Total (a + b + c)		1049
3. Total number of casuals employed on fire suppression (Each reemployment counts as an employment)		614
4. Number of casuals (included in Item 3) employed for first time (Ranger's estimate is adequate)	237	
5. GRAND TOTAL (1e + 2d + 3)		2212

LAND OWNERSHIP PROTECTION REPORT

(Summary of acres by states)

	INSIDE FOREST SERVICE PROTECTION BOUNDARIES							
	PROTECTED BY THE FOREST SERVICE							
	State and Private Land *(Include county and municipal land)*							
STATE	Fee Basis	Offset Basis	Reimburse-ment Suppression Costs Only	Without Reimburse-ment	Other Federal Land	National Forest Land	Total	National Forest Land Protected by Others
MONTANA	1,308,221	141,393	10,433		1,245,338	16,117,969	18,823,354	1,686,228
IDAHO	189,301	216,662			48,656	6,363,004	6,817,623	392,905
WASHINGTON						119,434	119,434	
NORTH DAKOTA						1,105,046	1,105,046	
SOUTH DAKOTA						228,643	228,643	73,535
TOTAL	1,497,522	358,055	10,433		1,293,994	23,934,096	27,094,100	2,152,668

LAND OWNERSHIP PROTECTION REPORT

(Summary of acres by states)

	INSIDE FOREST SERVICE PROTECTION BOUNDARIES							
	PROTECTED BY THE FOREST SERVICE							
	State and Private Land *(Include county and municipal land)*							
STATE	Fee Basis	Offset Basis	Reimbursement Suppression Costs Only	Without Reimbursement	Other Federal Land	National Forest Land	Total	National Forest Land Protected by Others
MONTANA								
Beaverhead	54,577				964,200	1,901,956	2,920,733	246,484
Bitterroot	7,676	119,788				1,114,373	1,241,837	1,065
Custer			9,333			1,077,967	1,087,300	599,014
Deerlodge	56,399				94,278	1,040,941	1,191,618	182,588
Flathead	128,823		1,100			2,185,659	2,315,582	168,852
Gallatin	315,878				18,571	1,762,738	2,097,187	
Helena	96,418	21,605			71,022	1,165,767	1,354,812	
Idaho Panhandle						28,496	28,496	
Kootenai	188,058				242	2,195,437	2,383,737	187,866
Lewis & Clark	54,126				15,010	1,743,679	1,812,815	118,635
Lolo	406,266				82,015	1,900,956	2,389,237	181,724
Total	1,308,221	141,393	10,433		1,245,338	16,117,969	18,823,354	1,686,228
IDAHO								
Bitterroot						270,967	270,967	
Clearwater	67,417					1,637,847	1,705,264	176,243
Idaho Panhandle	81,517	216,662			24,384	2,134,032	2,456,595	216,662
Kootenai						50,384	50,384	
Nez Perce	40,367				24,272	2,269,774	2,334,413	
Total	189,301	216,662			48,656	6,363,004	6,817,623	392,905